

Client Profiles Among Medication Treatment Episodes for Opioid Use Disorder With and Without Co-occurring Mental Health Disorders

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Abstract

Objectives

To compare national medication treatment episodes for opioid use disorder with and without recorded co-occurring mental health disorders.

Methods

We analyzed 2023 US Treatment Episode Data Set-Discharges records for 109,115 publicly funded treatment episodes with methadone use at admission, known mental health comorbidity status, recorded sex, and discharge for completion, dropout, or facility termination. We compared demographics, substance use, treatment, and discharge characteristics.

Results

Episodes with co-occurring disorders (n = 56,403) more often involved female clients (40.2% vs 31.5%), White clients (67.4% vs 59.3%), injection drug use (37.1% vs 29.3%), alcohol use (26.0% vs 13.5%), cocaine or crack use (38.8% vs 20.3%), residential care (30.1% vs 11.4%), and prior treatment (85.4% vs 68.4%). Mean length of stay was shorter (128.0 vs 169.3 days).

Conclusions

Co-occurring mental health disorder status marked distinct client and service profiles.

Public Health Implications:

Opioid treatment programs should pair medication treatment with systematic mental health, polysubstance-use, and discharge-support planning.

Introduction

The opioid overdose crisis remains a major public health emergency in the United States. Opioid-involved deaths have exceeded 80,000 annually, and the epidemic has evolved from prescription opioid misuse to heroin use and illicit synthetic opioids such as fentanyl.^{1,2} Medications for opioid use disorder reduce illicit opioid use and mortality and remain the foundation of evidence-based treatment.³

Mental health comorbidity complicates opioid use disorder treatment. Psychiatric disorders are common among persons with opioid use disorder, and shared biologic, developmental, and social risk factors may

reinforce both substance use and psychiatric symptoms.^{4,5} Persons with co-occurring disorders often face fragmented systems of care, limited integrated services, and insurance barriers.^{6–8}

Fewer contemporary analyses have focused on national medication treatment episodes for opioid use disorder.^{9,10} We used 2023 discharge data to compare client, substance-use, treatment, and discharge profiles between medication treatment episodes with and without a recorded co-occurring mental health disorder.

Methods

We used the 2023 Treatment Episode Data Set-Discharges, a national administrative data set maintained by the Substance Abuse and Mental Health Services Administration.¹¹ The analysis used public, deidentified episode-level data; trial registration was not applicable.

We included discharge episodes in which methadone use was reported at admission, co-occurring mental health disorder status was recorded, sex was recorded, and the discharge reason was treatment completed, dropped out, or terminated by the facility. The primary grouping variable was the TEDS-D indicator for co-occurring mental health disorder.

We examined demographics, substance use at admission, treatment setting, US region, primary payment source, prior treatment, length of stay, discharge reason, arrests in the 30 days before discharge, and living arrangement at discharge. Race and ethnicity were assessed to describe equity-relevant differences in recorded comorbidity status and treatment profiles. Hispanic or Latino ethnicity was prioritized over race.

Age and length of stay were converted from TEDS-D categories to approximate midpoint values. Unknown categories were retained and reported. We used chi-square tests for categorical variables and independent-samples t tests for age and length of stay.

Results

The final sample included 109,115 medication treatment episodes: 56,403 (51.7%) with and 52,712 (48.3%) without a recorded co-occurring mental health disorder (Table 1). Clients in episodes with co-occurring disorders were more often female (40.2% vs 31.5%) and White (67.4% vs 59.3%). The mean age at admission was slightly lower in the co-occurring group (39.7 vs 40.6 years).

Table 1
Characteristics of Medication Treatment Episodes for Opioid Use Disorder According to Co-occurring
Mental Health Disorder Status, 2023

Characteristic	Co-occurring disorder (N = 56,403)	No co-occurring disorder (N = 52,712)	P value
Demographics			
Female sex	22,667 (40.2)	16,614 (31.5)	< .001
Race or ethnicity			< .001
White	38,005 (67.4)	31,248 (59.3)	
African American	6,921 (12.3)	7,010 (13.3)	
Latino	8,205 (14.5)	10,163 (19.3)	
Other	2,459 (4.4)	2,478 (4.7)	
Unknown	813 (1.4)	1,813 (3.4)	
Age at admission, y	39.7 (11.0)	40.6 (12.1)	< .001
Postsecondary education	14,072 (24.9)	9,732 (18.5)	< .001
Unemployed or not in labor force at discharge	40,549 (71.9)	26,451 (50.2)	< .001
Substance use at admission			
Current injection drug use	20,911 (37.1)	15,450 (29.3)	< .001
Alcohol use	14,691 (26.0)	7,132 (13.5)	< .001
Cocaine or crack use	21,860 (38.8)	10,679 (20.3)	< .001
Marijuana or hashish use	9,859 (17.5)	6,235 (11.8)	< .001
Methamphetamine or speed use	8,268 (14.7)	8,067 (15.3)	.003
First use of primary substance at age < = 17 y	17,216 (30.5)	11,884 (22.5)	< .001
Treatment characteristics			
Treatment setting			< .001
Detoxification	5,999 (10.6)	3,915 (7.4)	
Rehabilitation/residential	16,994 (30.1)	5,995 (11.4)	
Ambulatory	33,410 (59.2)	42,802 (81.2)	
Note. Values are n (%) or mean (SD). P values are from chi-square tests for categorical variables and independent-samples t tests for continuous variables; they are descriptive and were not adjusted for multiplicity.			

Characteristic	Co-occurring disorder (N = 56,403)	No co-occurring disorder (N = 52,712)	P value
Medicaid primary payment source	12,926 (22.9)	15,526 (29.5)	< .001
One or more prior treatment episodes	48,196 (85.4)	36,052 (68.4)	< .001
Outcomes at discharge			
Length of stay, d	128.0 (142.7)	169.3 (158.7)	< .001
Reason for discharge			< .001
Treatment completed	23,390 (41.5)	20,513 (38.9)	
Dropped out	27,783 (49.3)	29,121 (55.2)	
Terminated by facility	5,230 (9.3)	3,078 (5.8)	
Homeless or dependent living at discharge	17,328 (30.7)	9,024 (17.1)	< .001
Note. Values are n (%) or mean (SD). P values are from chi-square tests for categorical variables and independent-samples t tests for continuous variables; they are descriptive and were not adjusted for multiplicity.			

Substance-use profiles differed between groups. Episodes with co-occurring disorders had higher proportions of current injection drug use (37.1% vs 29.3%), alcohol use (26.0% vs 13.5%), cocaine or crack use (38.8% vs 20.3%), and marijuana or hashish use (17.5% vs 11.8%). Methamphetamine use was similar but slightly lower in the co-occurring group (14.7% vs 15.3%).

Treatment and discharge characteristics also differed. Episodes with co-occurring disorders were more often in rehabilitation or residential settings (30.1% vs 11.4%) and less often in ambulatory care (59.2% vs 81.2%). One or more prior treatment episodes were reported more often in the co-occurring group (85.4% vs 68.4%). Mean length of stay was shorter in the co-occurring group (128.0 vs 169.3 days).

Discussion

In this national cross-sectional analysis of 2023 medication treatment discharges for opioid use disorder, episodes with a recorded co-occurring mental health disorder differed across demographic, substance-use, treatment, and discharge domains. The profile suggests a clinically complex population with more polysubstance use, greater use of residential care, and more prior treatment exposure.

The higher proportion of female clients in the co-occurring group is consistent with evidence that psychiatric disorders are common among persons with opioid use disorder.⁴ The higher recorded proportion of White clients should be interpreted cautiously. Differences may reflect true population patterns, but they may also reflect inequities in screening, diagnosis, documentation, and access to psychiatric assessment across racial and ethnic groups.¹²

Polysubstance use was prominent among episodes with co-occurring disorders, particularly alcohol and cocaine or crack use. This pattern is consistent with the clinical overlap between psychiatric symptoms and multiple substance use.⁹ For medication treatment programs, these findings support screening that extends beyond opioid use and includes mental health symptoms, alcohol use, stimulant use, and housing needs.

The treatment-setting and discharge findings point to service-planning challenges. More frequent residential or rehabilitation care and more prior treatment episodes suggest higher care needs, but the co-occurring group did not have longer stays. Integrated models that coordinate medication treatment, psychiatric care, discharge planning, and housing support remain important for this population.^{7,8}

This study has limitations. TEDS-D records treatment episodes rather than unique persons. The co-occurring mental health disorder variable is a general indicator and does not identify specific diagnoses or symptom severity. TEDS-D emphasizes publicly funded treatment facilities, limiting generalizability to private settings. The analysis was cross-sectional, descriptive, and unadjusted for confounding or multiplicity; findings should not be interpreted causally.

Public Health Implications

Public health systems and opioid treatment programs should treat co-occurring mental health disorder status as a service-planning signal, not only as a diagnostic label. Program responses should include systematic and culturally responsive mental health screening, assessment for alcohol and stimulant use, linkage to psychiatric care, and discharge planning that addresses housing instability and other social needs. Policy responses should preserve access to public coverage and integrated treatment models for populations with complex opioid use disorder and mental health needs.

Declarations

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Data availability: TEDS-D 2023 is publicly available from the Substance Abuse and Mental Health Services Administration.

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The data that support the findings of this study are openly available in Substance Abuse and Mental Health Services Administration at <https://www.samhsa.gov/data/data-we-collect/teds-treatment-episode-data-set/datafiles/teds-d-2023>.

Author Contribution

D.L.H. - grant attainment, conceptualized manuscript, reviewing manuscript Y.K. - conceptualized manuscript, statistical analysis, writing results, reviewing manuscript K.Z. - statistical analysis review, writing results, reviewing manuscript A.G.L. - Literature review, reviewing manuscript

Data Availability

Data availability: TEDS-D 2023 is publicly available from the Substance Abuse and Mental Health Services Administration, and are available at the following URL: <https://www.samhsa.gov/data/data-we-collect/teds-treatment-episode-data-set/datafiles/teds-d-2023>.

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